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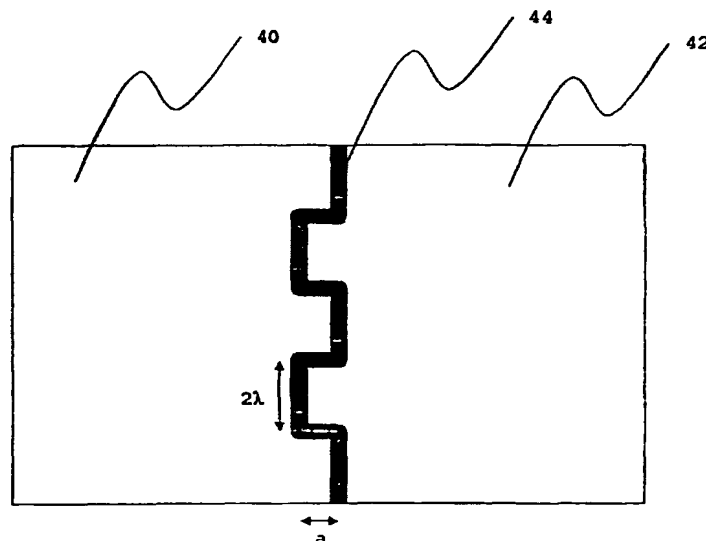
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(54) Title: THERMOELECTRIC MATERIAL WITH INTEGRATED DE BROGLIE WAVE FILTER



(57) Abstract: In this invention we offer a method which blocks movement of low energy electrons through the thermoelectric material. We achieve this using filter which is more transparent for high energy electrons than for low energy ones. Tunnel barrier on the way of the electrons is used as filter. Filter works on the basis of the wave properties of the electrons. The geometry of the tunnel barrier is such that barrier becomes transparent for electrons having certain de Broglie wavelength. If the geometry of the barrier is such that its transparency wavelength matches the wavelength of high energy electrons it will be transparent for high energy electrons and will be blocking low energy ones by means of tunnel barrier.

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